



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/405,777	09/27/1999	JOHN G. WACLAWSKY	CIS99-1717	9859

7590 09/04/2003

DAVID E HUANG ESQ
CHAPIN & HUANG LLC
WESTBOROUGH OFFICE PARK
1700 WEST PARK DRIVE
WESTBOROUGH, MA 01581

EXAMINER

ODLAND, DAVID E

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 09/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/405,777

Applicant(s)

WACLAWSKY ET AL.

Examiner

David Odland

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 22-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 22-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The following is a response to the amendments filed on 08/08/2003. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites "...the data communications device..." There is a lack of antecedent basis for this limitation of the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an

Art Unit: 2662

international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1,3,7-9,10,12,16-18 and 22-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Cave et al. (USPN 6,404,746), hereafter referred to as Cave.

Referring to claims 1 and 10, Cave discloses a data communications device (a voice response unit (VRU) (see figure 3)), comprising:

multiple network ports (the VRU has multiple ports (see column 2 lines 41-45));

memory that stores an application (a memory which stores applications (see item 622 of figure 3)); and

a controller coupled to a port and the memory (a data processor coupled to an Ethernet port and the memory (see item 620 in figure 3)), an agent process running on the controller when the controller operates in accordance with the application stored in the memory such that the agent (an application runs on the VRU that mediates between the gateways 606 and 626 (see figure 3));

receives a request signal from a request signal source (the VRU receives a signal from a gateway 606 (see figure 3 and columns 12 and 23)), the request signal intended for a host computer that would otherwise respond with control information for controlling a manner in which the request signal source transfers the data stream (the request signal normally would go to the gateway 626 at the receiving end which would respond with control information related to call signaling, if the information to be transferred is not voice data (see figure 3 and column 12 lines 60 and 61 and column 13));

Art Unit: 2662

generates a control signal in response to receiving the request signal (the VRU sends control signals to gateway 606 to redirect data directly to gateway 626 (see figure 3 and columns 8, 12 and 13), the control signal including the control information for controlling the manner in which the request signal source transfers the data stream (the control signals from the VRU include signals for gateway 606 to redirect data directly to gateway 626 (see figure 3 and columns 8,12 and 13)); and

provides the control signal to the request signal source to individually control the manner in which the request signal source transfers the data stream among multiple data streams transferred by the request signal source (the control signal tells gateway 606 to send data to gateway 626, wherein such a data transfer is among one of a plurality data streams gateway 606 can transmit on (note, since the packet network in figure 3 is the Internet, gateway 606 can thus communicate multiple data streams) (see figure 3, columns 12 and 13 and claim 11)).

Referring to claims 3 and 12, Cave discloses the method discussed above. Furthermore, Cave discloses that the method further includes the steps of forming the control signal without communicating with the host computer in response to request signal (the VRU communicates the control signals to gateway 606 without communicating with gateway 626 first (see figure 3 and columns 12 and 13)).

Referring to claims 7 and 16, Cave discloses the method discussed above. Furthermore, Cave discloses that the data within the data stream indicates that the host computer is an originator of the data stream (since the gateway 626 coverts the packet data from the packet network 602 into synchronous data to be transported over the PSTN 268, the gateway 626 is the originator of that data and the data must include an indication that the data come from the

Art Unit: 2662

gateway 626 because the switching mechanisms of the PSTN 268 must know this information in order for full-duplex communications to take place (see figure 3)).

Referring to claims 8 and 17, Cave discloses the communications method as discussed above. Furthermore, Cave discloses that the data within the request signal indicates that the host computer is an intended recipient of the request signal (the control signals sent to the VRU indicate communication with gateway 626 (see figure 3 and columns 12 and 13)).

Referring to claims 9 and 18, Cave discloses the method discussed above. Furthermore, Cave discloses that the request signal is an inter-process communication signal, and wherein the step of intercepting the request signal includes the step of obtaining, by a host agent operating within the data communications device and acting on behalf of the host computer, the request signal from the request signal source through an inter-process communication interface of the host agent (the signal from gateway 606 is received by the data processor and the data processor controls the way the data is communicated to gateway 626 and thus acts on behalf of the way gateway 626 would have set up the communication itself if the information was not voice data (see figure 3 and columns 12 and 13)).

Referring to claim 22, Cave discloses the system discussed above. Furthermore, Cave discloses that the step of intercepting a request signal includes: receiving the request signal from the request signal source (an indication from gateway 606 is received when the gateway is going to transmit a voice stream requiring the VRU (see figure 3 and columns 12 and 13)), the request signal source being disposed at an intermediate node of the network (gateway 606 is at an intermediate node with respect to the entire network (see figure 3 and columns 12 and 13)), the request signal source routing the data stream from the host computer to a recipient computer

Art Unit: 2662

(gateway 606 is responsible for setting up the connection between itself and gateway 626, wherein gateway 626 forwards on the data to an end recipient of the PSTN (see figure 3) and gateway 626 uses the information control information supplied by gateway 606 via the VRU for routing the data to the end recipient of the PSTN, therefore gateway 606 performs routing of the data from gateway 626 to the end recipient (see figure 3 and columns 12 and 13)).

Referring to claim 23, Cave discloses the system discussed above. Furthermore, Cave discloses that the step of intercepting a request signal includes receiving the request signal at an intermediate node of the network other than a node of the request signal source (control information is sent from gateway 606 to the VRU which is at an intermediate node of the network (see figure 3 and columns 12 and 13)).

Referring to claim 24, Cave discloses the system discussed above. Furthermore, Cave discloses that the request signal source is disposed at an intermediate node of the network (gateway 606 is at an intermediate node of the network (see figure 3 and columns 12 and 13)) and the request signal source routes the data stream from the host computer to a recipient computer (gateway 606 is responsible for setting up the connection between itself and gateway 626, wherein gateway 626 forwards on the data to an end recipient of the PSTN (see figure 3) and gateway 626 uses the information control information supplied by gateway 606 via the VRU for routing the data to the end recipient of the PSTN, therefore gateway 606 performs routing of the data from gateway 626 to the end recipient (see figure 3 and columns 12 and 13)).

Referring to claim 25, Cave discloses the system discussed above. Furthermore, Cave discloses that the controller running the agent process is disposed at an intermediate node of the

Art Unit: 2662

network other than that of the request signal source (the VRU and its processor are at a node other than gateway 606 (see figure 3)).

Referring to claim 26, Cave discloses the system discussed above. Furthermore, Cave discloses that the request signal travels along a path from the request signal source to the controller exclusive of a path associated with the data stream (the control information form gateway 606 is sent over a control link to the VRU whereas the media stream data is send directly to gateway 626 (see figure 3)).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2,5,6,11,14,15,19 and 20, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Cave.

Referring to claim 2 and 11, Cave discloses the system discussed above. Cave does not disclose that the request signal source is a data communications mechanism operating within the data communications device. However, it would have been obvious to one skilled in the art at the time of the invention to include the gateway 606 within the VRU as a whole system because doing so would allow the system of Cave to operated faster since the VRU would not have to communicate over the packet network 602 (Internet) and experience delays associated with doing such.

Art Unit: 2662

Referring to claims 5 and 14, Cave discloses the communications method as discussed above. Furthermore, Cave discloses that the data stream is a multicast session (the signals can be of a broadcast type and multi-party conferencing (see figure 3 and column 21)). Cave does not disclose that the control information of the control signal includes Internet Group Management Protocol instructions. However, it would have been obvious to one skilled in the art at the time of the invention to have the control signal, in the system disclosed by Cave, include Internet Group Management Protocol (IGMP) instructions because IGMP is an existing standardized communications protocol that uses a multicast address to distinguish between sets of recipients for multicast packets in a network and therefore it would be faster to implement rather than developing a new protocol for the multicasting in Cave.

Referring to claims 6 and 15, Cave discloses the communications method as discussed above. Cave does not disclose that the agent further performs an operation that decides whether to contact the host computer for assistance in response to the request signal, a result of the operation directing the data communications device not to contact the host computer in response to the request signal. However, it would have been obvious to one skilled in the art at the time of the invention to perform such an operation in the system of Cave because avoiding the step of having to contact the gateway 626 would reduce network traffic and increase the available bandwidth, which can be used by other network nodes.

Referring to claim 19, Cave discloses the of a device that performs the steps of:

intercepting a request signal from a request signal source (the VRU intercepts a signal from gateway 606 (see figure 3 and columns 12 and 23)), the request signal intended for a host computer that would otherwise respond with control information for controlling a manner in

Art Unit: 2662

which the request signal source transfers the data stream (the request signal normally would go to the gateway 626 at the receiving end which would respond with control information related to call signaling, if the information to be transferred is not voice data (see figure 3 and column 12 lines 60 and 61 and column 13));

generating a control signal in response to intercepting the request signal (the VRU sends control signals to gateway 606 to redirect data directly to gateway 626 (see figure 3 and columns 12 and 13), the control signal including the control information for controlling the manner in which the request signal source transfers the data stream (the control signals from the VRU include signals for gateway 606 to redirect data directly to gateway 626 (see figure 3 and columns 8, 12 and 13)); and

providing the control signal to the request signal source to individually control the manner in which the request signal source transfers the data stream among multiple data streams transferred by the request signal source (the control signal tell gateway 606 to send data to gateway 626, wherein such a data transfer is among one of a plurality data streams gateway 606 can transmit on (note, since the packet network in figure 3 is the Internet, gateway 606 can thus communicate multiple data streams) (see figure 3, columns 12 and 13 and claim 11)).

Cave does not disclose that the method is performed through the use of a computer program.

However, it is well known in the art that software has a much lower development cost and is much easier to upgrade than hardware. For these reasons, it would have been obvious to one skilled in the art at the time of the invention to implement the method disclosed in Cave through the use of a program.

Art Unit: 2662

Referring to claim 20, Cave discloses the system discussed above. Furthermore, Cave discloses that the communications device directs operation of the request signal source (the VRU directs the manner in which gateway 606 transmits data (see columns 12 and 13 and figure 3)). Cave does not disclose that the request signal source is a data communications mechanism operating within the data communications device. However, it would have been obvious to one skilled in the art at the time of the invention to include the gateway 606 within the VRU as a whole system because doing so would allow the system of Cave to operate faster since the VRU would not have to communicate over the packet network 602 (Internet) and experience possible delays.

8. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cave in view of U.S. Patent number 6,014,694 to Aharoni et al., hereafter referred to as Aharoni.

Referring to claims 4 and 13, Cave discloses the communication system as discussed above. Cave does not disclose that the data stream is a ReSerVation Protocol session, and the control information of the control signal includes ReSerVation Protocol instructions. However, Aharoni discloses an audio/video transmission system with uses a reservation protocol (RSVP) to reserve bandwidth and provide quality of service features of the protocol (see column 7 lines 35-43)). Since the network of Cave transfers video and/or audio data, it would have been obvious to one skilled in the art at the time of the invention to utilize a reservation protocol, as taught in Aharoni, in the system of Cave, because doing so would make the system of Cave more reliable by reserving bandwidth and providing quality of service features, required for audio and/or video type data.

Response to Arguments

9. The following is responsive to the Applicant's arguments filed 08/08/2003.

On pages 10-14, regarding claim 1, the Applicant contends that the Examiners 35 USC 102 rejection is improper and cites passages from Cave relating to the telephones and how signals from them are not intercepted by any of the network nodes. However, these arguments are not persuasive. As more clearly specified in the above rejections, the requesting node corresponds to gateway 606 of Cave, the intercepting node corresponds to the VRU and the host computer corresponds to gateway 626. Furthermore, as shown in figure 4b, the VRU intercepts signaling information from the gateway. Lastly, the VRUs of Cave are 'Voice Response Units' (see abstract) and as the name implies and as pointed out by Cave in column 12 lines 60 and 61, they are used only for voice data. Gateways 606 and 626 are also used for transceiving Internet data that is not concerned with the functions that the VRU provides (i.e. data files will not need to use the VRU to be transferred; they merely use IP addresses to propagate through the packet network). Therefore, if gateways are transceiving data files they normally communicate with each other without the use of the VRU, however, since voice calls are also being transceived between the gateways, the VRU is needed to perform such functions as address conversion.

On page 14 paragraph 4, the Applicant argues that the claim 3 rejection is improper because claim 3 recites that the control signal is formed without communications to an otherwise intended host computer. However, claim 3 does not recite such a limitation. Claim 3 recites, "...the method further includes the steps of forming the control signal without communicating with the host computer in response to request signal..." Taken broadly, this claim is interpreted as meaning that the intercepting node forms the control signal without communicating with the

Art Unit: 2662

host computer. Since the VRU communicates the control signals to gateway 606 without having to communicating with gateway 626 (see figure 3 and columns 12 and 13)), this claim is anticipated by Cave.

On page 15, regarding claim 9, the Applicant argues that Cave does not support gateway 606 communicating with gateway 626 without the VRU. The Examiner respectfully disagrees. The gateways of Cave are used to interface the PSTN to the Internet. The VRU is used, amongst other things, to convert phone numbers to IP addresses to help enforce the VoIP protocol associated with voice calls. As such, there is no need for this conversion to take place if the data is not a voice call (see column 12 lines 60 and 61). Since computers packetize non-voice related data, provide IP addresses for those packets and send the packets over the PSTN to the gateway 606, there is no need for the gateway 606 to use the VRU to convert the addresses of such data and gateway 606 can directly communicate with gateway 626 for this type of data.

On page 15, regarding claim 22, the Applicant also submits that the telephone 610 corresponds to the request signal source. The Examiner respectfully disagrees with this submission. As pointed out in the rejection discussed above, the requesting signal source corresponds to gateway 606 of Cave.

On page 17, regarding claim 2, the Applicant argues that the motivation to include the VRU with the gateway is improper and based on hindsight reasoning. The Examiner respectfully disagrees. It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention

Art Unit: 2662

was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, Cave points out, in column 7, that the packet network experiences delays and 'jitter' problems. Since the gateway communicates with the VRU via the packet network it can be gathered that this communication will also experience delay and jitter problems. Therefore, combining these elements into a single system will prevent having to communicate over the packet network and thus prevent the delay and jitter problems.

On page 20, regarding claim 4, the Applicant contends that the rejection is improper since in the present invention the host computer is alleviated from having to provide control instructions. However, this is not a limitation of the claim.

Conclusion


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland, who can be reached at (703) 305-3231 on Monday – Friday during the hours of 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, who can be reached at (703) 305-4750.

deo

August 30, 2003


JOHN PEZZLO
PRIMARY EXAMINER